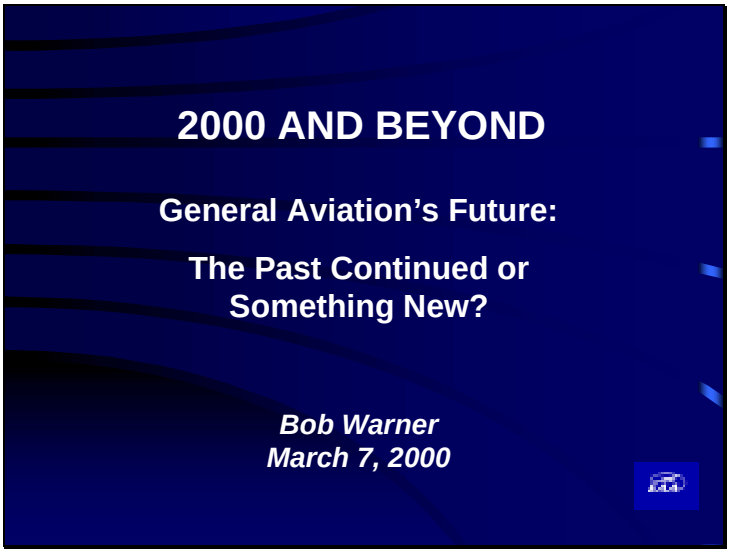
Slide 1



Thanks, Pete

Appreciate Opportunity

Underscore the exciting technology revolution ongoing; and some elements for your consideration of the human resources requirements

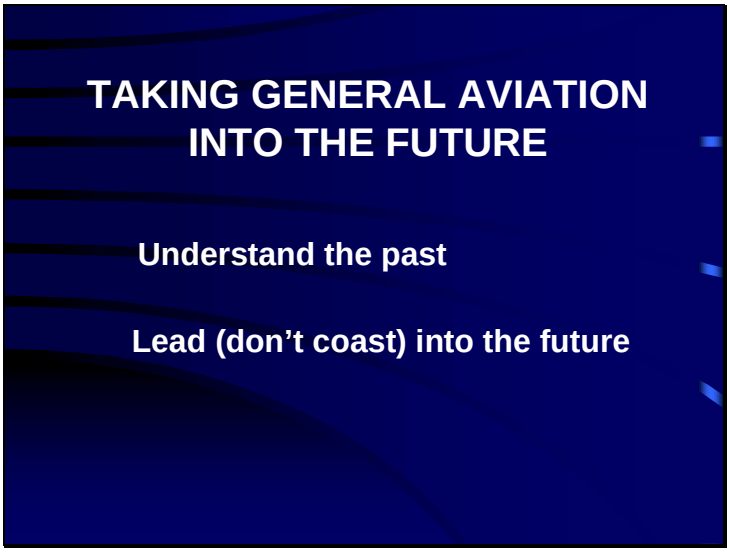
Slide 2

Historians and educators evaluated the 100 most significant events of the 20th century

#2 was Neil Armstrong's first step on the moon

#4 was the Wright Brothers flight

Slide 3



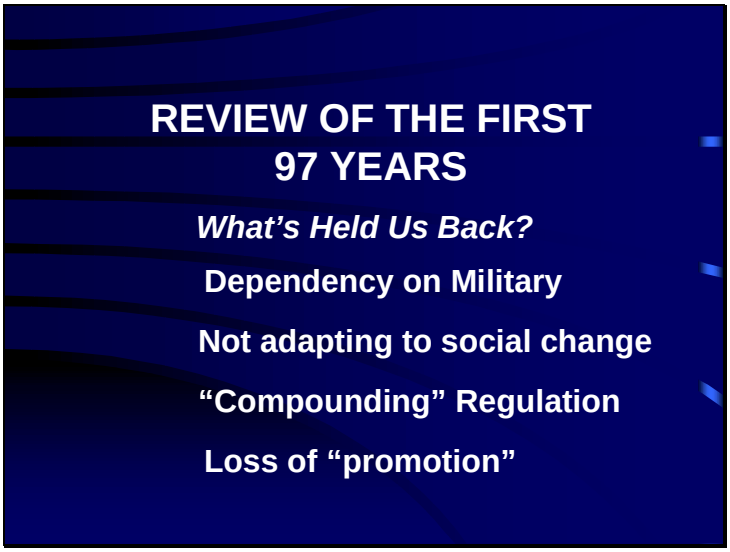
Before we describe the importance of leadership necessary to go to the future;

A quick review of our past.

Slide 4

How to summarize 97 years of human, social, and technological change in 3 minutes?!
Let's move this forward:
Top of the list -- Military
Requirements that drove technology development, innovation, human resources with trained personnel (pilots, mechanics, engineers, support)
War, specifically, drove even faster the need for the aircraft, the infrastructure (including airports) and personnel
Public transportation needs dictated a desire for growing numbers of people to travel economically between major population areas; this also created the rudimentary and finally our current-day ATC system.

Slide 5



So, what held us back?
The very "military" that moved us forward started a dependency that, when eliminated in recent years, left a vacuum of aviation system capacity without the supply line of pilots, aircraft and general aviation utility
General aviation has not adapted well to social change in many ways:
The evolution of the role of the family, the role of women in the workplace as well as in the family structure, and many other social elements of personal transportation and recreation.
The layers of regulation on general aviation that, in many cases, have been laid upon one another without another "global" view of the regulatory needs.
Not insignificant -- FAA's change in charter: No longer for "promoting"

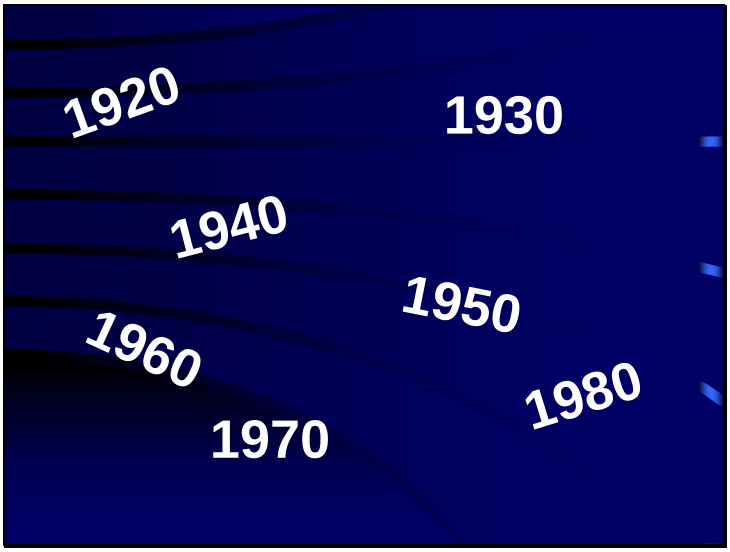
Slide 6

It never has been; technological development

We count aircraft, production numbers, aircraft movement: **WRONG!**

Allow me to divert to a brief aviation history lesson -- a hypothesis of where we are today -- and why -- it's about **PEOPLE**. About pilots.

Slide 7



Since the late 1970's we've seen student starts in virtual free-fall, an equally dramatic downward slide in lightplane production, a six-figure decrease in the total pilot population, the closure of both public and private airports, FBOs and other airport businesses.

A lot of rationales have been put forth to explain this unprecedented decline, the worst of its kind in aviation history. Product liability and consequent runaway aircraft price escalation top most lists…but <u>business</u> has not really been the fundamental problem.

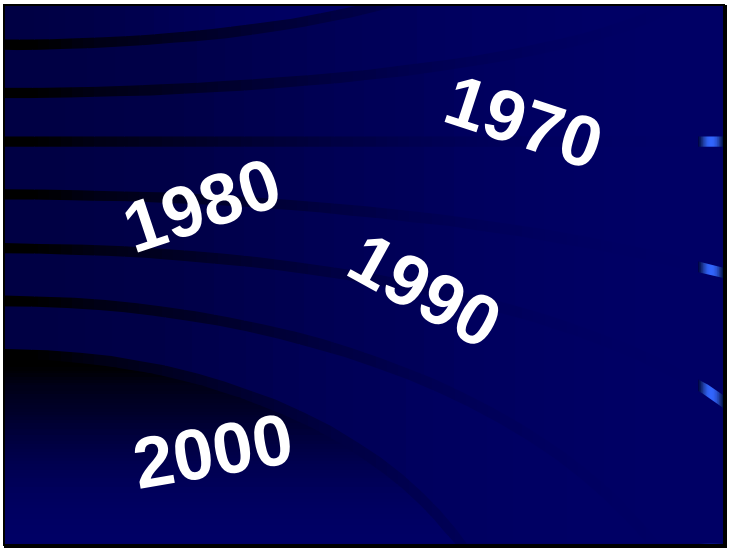
We've had several declines in light plane production in the past…in the late 1920s following Lindbergh's flight to Paris.

After the 35,000 lightplanes produced in 1946 flooded the grossly overestimated post-World War II market, there was…a nose dive in sales in 1947 and '48.

KEY…there was <u>not</u> an accompanying huge and continuing decline in student starts or in the total pilot population.

Continued

Slide 8

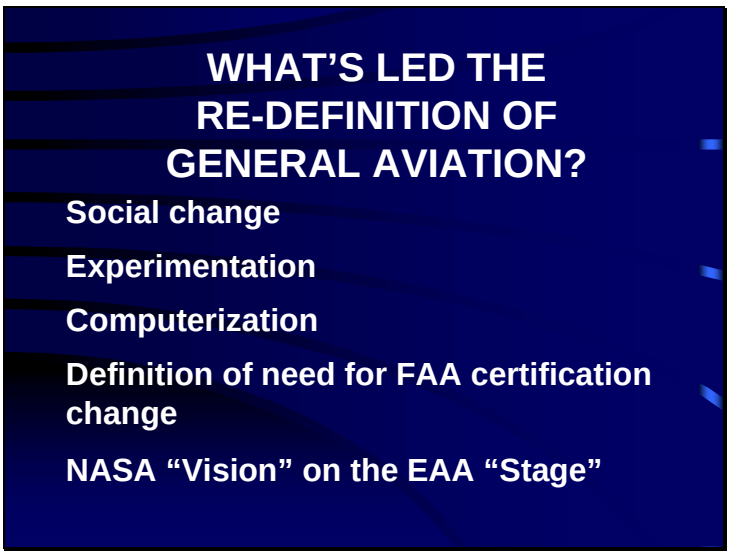


Fundamentally, what we were seeing in the 1980s was our general aviation community seeking its natural level--shrinking back to the size it might have been had there never been a CPT/WTS and G.I. Bill
It would have happened even if there had been no fuel crisis in the 1970s and early ‘80s and no culture shock over $2.00 per gallon avgas…even if there had been no elimination of accelerated depreciation…or even if there had been no huge escalation in product liability cases in the early ‘80s and consequent increases in product liability insurance premiums and aircraft prices.
There were other elements at play, nevertheless. In the 1980s, by the time prospective new pilots were typically forty-something and could see the end of the tunnel on their mortgages and their children’s education, times and attitudes had changed dramatically. These were people who were in their 20’s in the 1960s -- the era of the Cold War, the race to the moon, the Beatles, The Great Society, the Vietnam War, Hippies, and the anti-war protests.
Continued

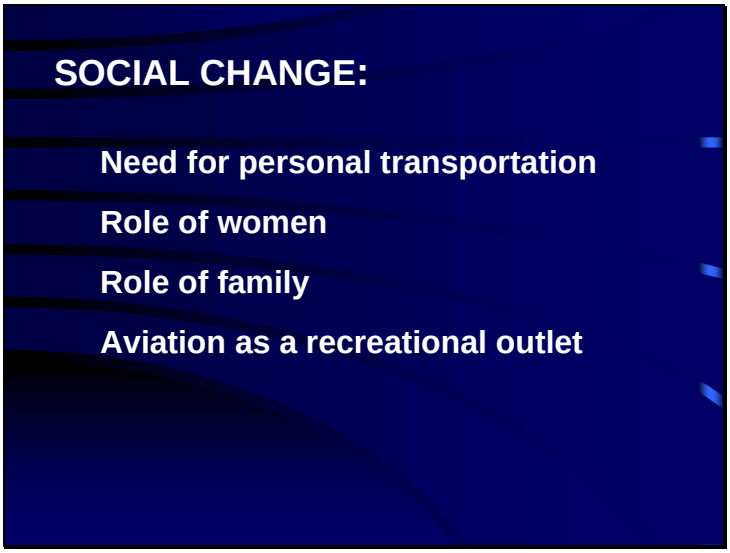
Slide 9

General aviation vehicle needs for the future are in three broad categories
Personal transportation to augment a mass aviation transportation network and that will provide the all-weather, safe, capable movement of individuals -- regardless of purpose.
The transportation of goods-appropriately sized vehicles as a supplement to the larger transport aviation system
Recreational air vehicles for a wide variety of recreational purposes: From parachutes and trikes to the exhibition jet warbird aircraft to hot air balloons to recreational aerobatic planes; and everything in between.

Slide 10


WHAT'S LED THE RE-DEFINITION OF GENERAL AVIATION?
Social change
Experimentation
Computerization
Definition of need for FAA certification change
NASA "Vision" on the EAA "Stage"

Slide 11



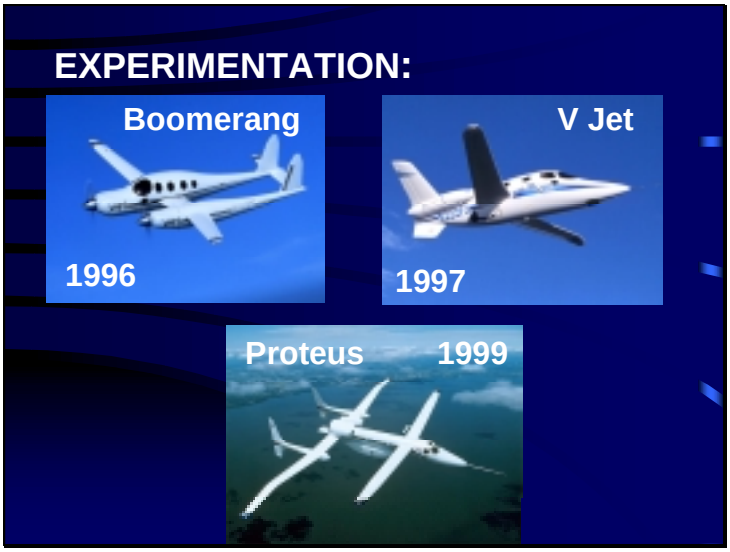
AGATE / GAP / SATS are all working toward clarification of the needs of personal aviation transportation. A number of new start companies are also recognizing the differing needs of the general aviation community with such innovations as the aircraft parachute recovery system of the now certified SR20 and the innovative flight/weather information systems and real-time computerized aircraft system diagnostics.

The opportunity for women, both choosing aviation as a career path, as well as an individual and family decision-maker, to participate in aviation for recreation or use it for transportation.

The role of family needs to be carefully understood as it continues to change. Both the marketplace and the regulatory environment needs to adapt to the changing requirements of “family” within the general aviation community.

Last -- but not least -- there needs to be a clearer recognition that aviation is an important recreational outlet. For many aviation is a lifestyle which reinforces enthusiasm for all of aviation and its infrastructure. “Recreation is big business”

Slide 12



The Early development of composite homebuilts led to discovery that laminar flow was more than just a lab test -- it could be done in the real world.

New airframe

New materials

New wing designs

Slide 13

Everyone knows about the leaps in computer technology and what that's meant to aircraft panels in the last decade.

GPS, integrated CNS, FITs, weather-in-the-cockpit

In the homebuilt movement --
Outside FAA's lethargic certification process
Has used automotive industry technology

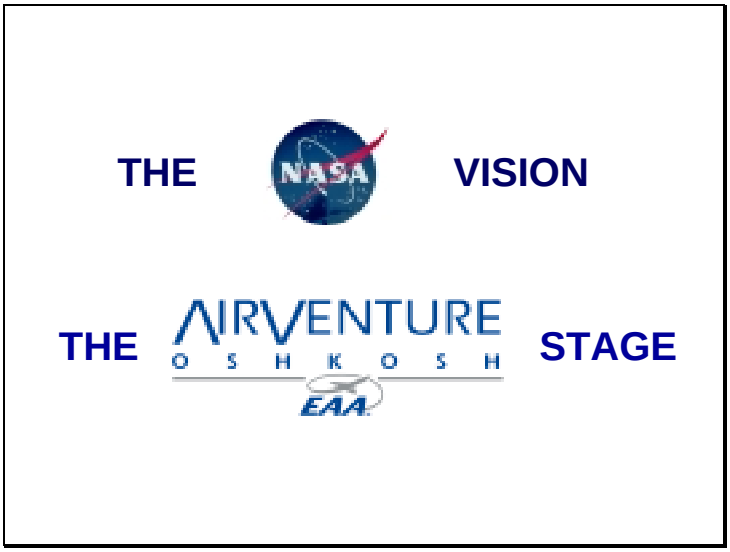
Slide 14

Not just for those that have the time and interest to “build their own” the homebuilt movement has spawned a number of production aircraft as well.

The work of EAA, FAA and SAMA in early 90s resulted in Small Airplane Certification Compliance Program, led to new thinking at FAA to simplify procedures. Work yet to be done.

Quicksilver GT500
Zenair CH2000
Cirrus Design SR20
Lancair Columbia 300

Slide 15



After years of darkness in general aviation research work, comes NASA with a series of collaborative programs which involve all elements of government and industry and assured “ownership” with cost sharing initiatives

Slide 16

Dan Goldin visits, assembles with key innovators, kit manufacturers

Slide 17

An advisory panel created after Goldin's '92 visit evolved the creation of AGATE -- announced in 1994 to explore….
EAA AirVenture Oshkosh set by Dan Goldin as the "Annual Report Card"...

Slide 18

1997 GAP Program was an acknowledgement that all major advancements in aeronautical technology have been keyed to advancements in propulsion systems.

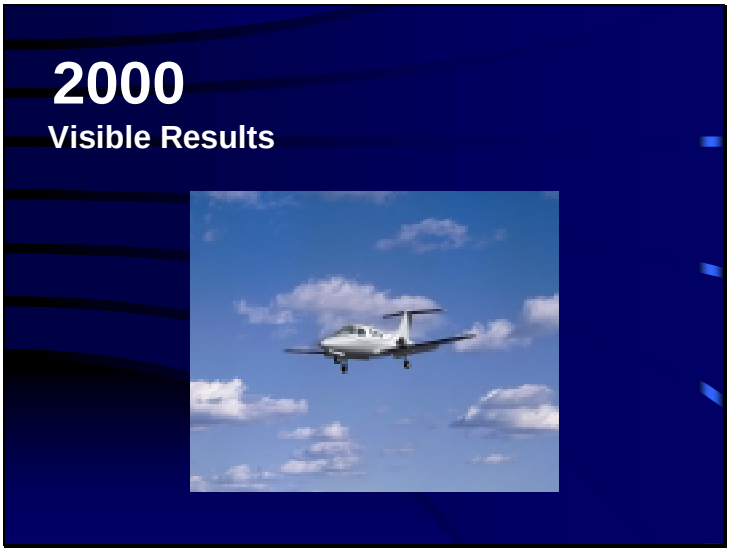
Williams International, which had pioneered development of small, highly efficient jet engines in 1960's, challenged by NASA contract to develop engine at 1/10th the cost.

Teledyne Continental signed on to produce two-stroke diesel engine of 1/2 the cost for comparable power.

Slide 19

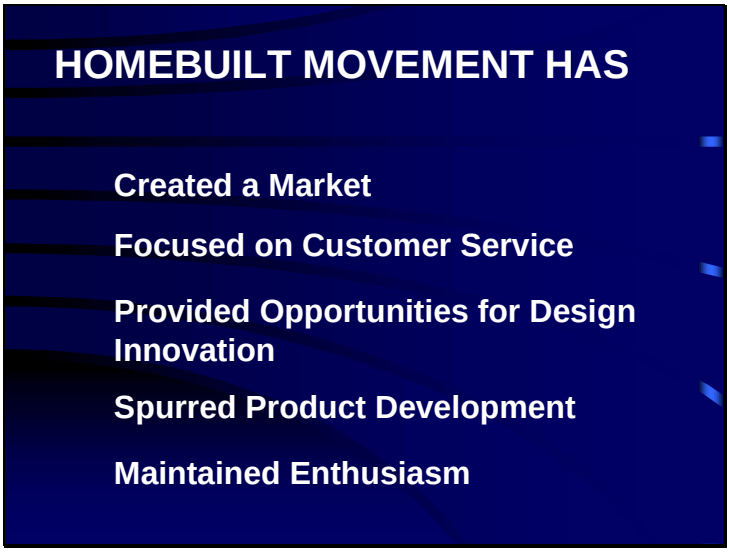
Goldin announced the full picture of general aviation's future vision, bringing together aircraft capabilities, aircraft systems, propulsion advancements and an infrastructure for the air traffic system including flight information systems and weather in the cockpit, fully integrated for safe personal air transportation.

Slide 20



In 2000 results will be seen.
In 1997, Dan Goldin made the challenge to deliver a sample of the “new generation.” It is happening!
For example, yesterday the Eclipse Aircraft Company announced it will fly at AirVenture 2000, a 6-passenger aircraft with the weight of the Beech Baron, the price tag of less than a Bonanza and the operating performance of a jet.
Come to Oshkosh and see the engine Dan Goldin, Sam Williams and Burt Rutan said you’d be able to carry under one arm.
35 pounds
770 pounds of thrust
Eclipse 500 will come from “disruptive technology,” virtually leaping into the future.

Slide 21



The Eclipse -- and many other revolutionary ideas -- have been born under a wing at Oshkosh. The homebuilt community is proud of its contribution to general aviation's future.

This has created a market -- of interest for expanding performance for general aviation, personal transportation and recreation.

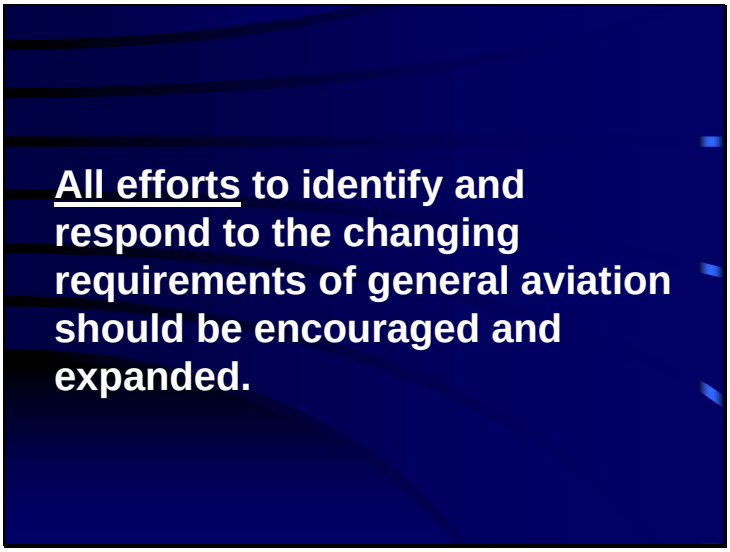
Through the lack of restriction in the experimental amateur-built aircraft regulations, manufacturers of kit aircraft have been allowed to focus on customer service and rapid response to customer demands for performance.

This regulatory freedom also enables opportunity for design innovation -- and the use of various construction techniques and materials.

Homebuilts have incorporated product development both in aircraft, in aircraft systems, in avionics, and in the use of automotive technologies.

Excitement of design, construction options, and performance capabilities equals enthusiasm.

Slide 22


All efforts to identify and respond to the changing requirements of general aviation should be encouraged and expanded.

Slide 23


“LEAD”
Government:
Evolve Certification and Operational Regulations

Slide 24

Slide 25

“LEAD”

Associations:

Promote, Promote

567,769 EAA Young Eagles

Slide 26

The enthusiasm for aviation’s future is out there
Need for us to accomplish general aviation’s vision is imperative
Let’s lead our nation to that future vision.